#### §58.622

#### §58.622 Hardening and storage rooms.

Hardening and storage rooms for frozen desserts shall be constructed of satisfactory material for this purpose. The rooms shall be maintained in a clean and orderly manner. Adequate shelves, bins, or pallets shall be provided to keep the packages of finished products off the floor and to prevent damage to the containers. Sufficient refrigeration should be provided to insure adequate storage temperature  $(-10^{\circ} \text{ or lower})$ . Air shall be circulated to maintain uniform temperature throughout the rooms. A vestibule or double entry way should be provided to minimize heat shock of the frozen products.

EQUIPMENT AND UTENSILS

#### § 58.623 Homogenizer.

Homogenizer shall comply with 3-A Sanitary Standards.

#### §58.624 Freezers.

Product contact surfaces of freezers used to lower the temperature of the liquid mix to a semi-frozen mass by a stirring action shall be constructed of a stainless steel or equally corrosion resistant metal and all parts easily accessible for cleaning and sanitizing. Batch and continuous freezers should comply with the applicable 3-A Standards.

## § 58.625 Fruit or syrup feeders.

Fruit or syrup feeders inject flavoring material into the semi-frozen product. Product contact surfaces shall be constructed of stainless steel or equally corrosion resistant metal and all pumps shall be in accordance to 3–A Sanitary Standards for dairy equipment. The feeder shall be constructed to enable complete disassembly for cleaning and sanitizing.

# $\S 58.626$ Packaging equipment.

Packaging equipment designed to mechanically fill and close single service containers with frozen desserts shall be constructed so that all product contact surfaces shall be of stainless steel or equally corrosion-resistant metal. All product contact surfaces shall be easily accessible for cleaning. The design and operation of the machine shall in no way contaminate the

container of the finished product placed therein. New or replacement equipment shall comply with the 3A Sanitary Standards for Equipment for Packaging Frozen Desserts and Cottage Cheese.

QUALITY SPECIFICATIONS FOR RAW MATERIAL

#### § 58.627 Milk and dairy products.

To produce ice cream and related products the raw milk and cream shall meet the quality requirements as prescribed in §§58.132 through 58.138, except that only commingled milk and cream meeting the bacteriological requirements of No. 1 shall be used.

## §58.628 Sweetening agents.

Sweetening agents shall be clean and wholesome and consist of one or more of the approved sweeteners listed in §58.605.

#### § 58.629 Flavoring agents.

Flavoring agents either natural or artificial shall be wholesome and free from undesirable flavors. They must impart the desired characteristic to the finished product. Flavoring agents shall be one or more of those approved in §58.605.

## § 58.630 Stabilizers.

Stabilizers shall be clean and wholesome and consist of one or more of those approved in §58.605.

# § 58.631 Emulsifiers.

Emulsifiers shall be clean and wholesome and consist of one or more of those approved in §58.605.

#### § 58.632 Acid.

Acids used in sherbet shall be wholesome and of food grade quality and consist of one or more of those approved in §58.605.

## § 58.633 Color.

Coloring used for ice cream and related products shall be those certified by the U.S. Food and Drug Administration as safe for human consumption.

OPERATIONS AND OPERATING PROCEDURES

# § 58.634 Assembling and combining mix ingredients.

The assembling and combining of mix ingredients for processing shall be in accordance with clean and sanitary methods and shall be consistent with good commercial practices. All raw materials shall be subjected to inspection for quality and condition prior to being combined and processed into the finished mix. All necessary precautions shall be taken to prevent the contamination of any raw material or the finished mix with any foreign substance.

## § 58.635 Pasteurization of the mix.

Every particle of the mix, except added flavoring ingredients, shall be pasteurized at not less than 155 °F. and held at that temperature for 30 minutes or for 175 °F. for 25 seconds; or it may be pasteurized by any other equivalent temperature and holding time which will assure adequate pasteurization.

## § 58.636 Homogenization.

Homogenization of the pasteurized mix shall be accomplished to effectively reduce the size of the milkfat globules and evenly disperse them throughout the mix.

## § 58.637 Cooling the mix.

The mix shall be immediately cooled to a temperature of 45 °F. or lower, and stored at this temperature until further processing begins.

# § 58.638 Freezing the mix.

After the mix enters the freezer, it shall be frozen as rapidly as possible to assure the formation of minute crystals. Proper adjustment of rate of flow, refrigerant and air pressure controls shall be achieved to assure correct overrun and consistency of the product for packaging and further freezing.

#### § 58.639 Addition of flavor.

The addition of flavoring ingredients to semi-frozen mix just prior to packaging shall be performed in a clean and sanitary manner. Care shall be taken to insure the flavor injection equipment has been properly cleaned and

sanitized prior to use and that the flavor ingredients are of good quality and wholesome.

#### §58.640 Packaging.

The packaging of the semifrozen product shall be done by means which will in no way contaminate the container or the product. When single service containers and lids are used, they shall be of good construction and protect the finished product. Containers used for frozen products shall be stored and handled in a sanitary manner so as to protect them from dust and bacterial contamination.

## § 58.641 Hardening and storage.

Immediately after the semifrozen product is placed in its intended container it shall be placed in a hardening tunnel or hardening room to continue the freezing process. Rapid freezing to 0° to -15 °F is desirable to produce a good textured product.

## §58.642 Quality control tests.

All mix ingredients shall be subject to inspection for quality and condition throughout each processing operation. Quality control tests shall be made on flow line samples as often as necessary to check the effectiveness of processing and sanitation and as an aid in correcting deficiencies. Routine analysis shall be made on raw materials and finished products to assure adequate composition, weight or volume control.

# §58.643 Frequency of sampling.

- (a) Microbiological. Representative samples shall be taken from each type of mix, and for the finished frozen product one sample from each flavor made.
- (b) Composition. Representative samples shall be tested for fat and solids-not-fat on each type of mix manufactured. Spot checks shall be made on the finished products as often as is necessary to assure compliance with composition standards.
- (c) Weight or volume control. Representative samples of the packaged products shall be checked during the packaging operation to assure compliance with the stated volume on the container as well as weight and over-run requirements.